



Chempack

GENERAL

IDAHO EMS GUIDELINE

Administration of Atropine and Pralidoxime by Auto-Injector

INDICATIONS:

- An unexplained multi-casualty incident (MCI);
- Symptoms of nerve agent toxicity or organophosphate poisoning

MILD SYMPTOMS

- Blurred vision, miosis (pinpoint pupils)
- Excessive, unexplained teary eyes
- Excessive, unexplained runny nose
- Increased salivation such as sudden drooling
- Chest tightness or difficulty breathing
- Tremors throughout the body or muscular twitching
- Nausea and/or vomiting
- Unexplained wheezing, coughing or increased airway secretions
- Acute onset of stomach cramps
- Tachycardia or bradycardia

SEVERE SYMPTOMS

- Strange or confused behavior
- Severe difficulty breathing or copious secretions from lungs/airway
- Severe muscular twitching and general weakness
- Involuntary urination and defecation
- Convulsions
- Unconsciousness

INITIAL DOSAGE FOR SEVERE SYMPTOMS:

- 0-2 years of age : 1 dose of both Atropine and Pralidoxime
- 2-10 years of age: 2 doses of both Atropine and Pralidoxime
- >10 years of age: 3 doses of both Atropine and Pralidoxime

INITIAL DOSAGE FOR MILD SYMPTOMS:

- 0-2 years of age : None
- 2-10 years of age: None
- >10 years of age: 1 dose of both Atropine and Pralidoxime

POTENTIAL SIDE EFFECTS:

- Hypertension
- Tachycardia
- Chest pain/angina
- Urine retention

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CONTRAINDICATIONS:

- None if severe symptoms are present

PRECAUTIONS:

- Use appropriate PPE, including respiratory protection
- Ensure patient decontamination
- Only providers in appropriate PPE should treat patients prior to decontamination

1. Atropine and Pralidoxime may be administered as a single auto-injector (e.g., DuoDote) or as separate auto-injectors (e.g., Mark I Kit).
2. Before administering Atropine and Pralidoxime, the provider must receive training and demonstrate competency in the following:
 - a. Pharmacology of the drug
 - b. Drug indications
 - c. Drug contraindications of
 - d. Specific route of drug administration
 - e. Manufacturer's instructions
3. Procedure:
 - a. Ensure scene safety, proper PPE and initiate decontamination as indicated. Decontamination should include removal of clothing and washing with soap and large amounts of water.
 - b. Confirm the patient has or may have been exposed to a nerve agent or organophosphates.
 - c. Determine the presence of mild or severe symptoms.
 - d. Suction airway as necessary.
 - e. Administer high flow oxygen and assist ventilation as necessary.
 - f. Explain the procedure to the patient or family, if able.
 - g. Confirm the patient's age, if able.
 - h. Obtain verbal consent, if able.
 - i. Administer Atropine and Pralidoxime.
 - 1) When severe symptoms are present:
 - 0-2 years of age: 1 dose
 - 2-10 years of age: 2 doses in rapid succession
 - >10 years of age: 3 doses in rapid succession
 - 2) When mild symptoms are present **AND patient is >10 years of age**, give 1 dose.

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- 3) If a patient with initially mild symptoms later develops severe symptoms, give Atropine and Pralidoxime:
 - 0-2 years of age: 1 dose
 - 2-10 years of age: 2 doses in rapid succession
 - >10 years of age: 2 additional doses in rapid succession
 - j. Continue your assessment and treatment of the patient, including airway management.
 - k. If the patient continues to have severe symptoms 10 minutes after receiving Atropine and Pralidoxime, administer additional Atropine per local protocol. Emergency Medical Responders, EMTs and Advanced EMTs may only administer Atropine using an auto-injector.
 - l. If the patient develops seizures, administer a benzodiazepine (e.g., Diazepam/Valium) per local protocol. Emergency Medical Responders, EMTs and Advanced EMTs may not administer benzodiazepines.
 - m. At an MCI event, label the patient's forehead to indicate they have received a MARK 1 Kit or DuoDote by writing "MARK 1", "DuoDote". Indicate the number of doses and the time(s) of administration. If using triage tags, document the same information on the triage tag.
 - n. Continue your assessment and treatment of the patient, including airway management.
4. Drug Administration
- a. Determine if you have a Mark 1 Kit or DuoDote.
 - b. If you have a Mark 1 Kit:
 - 1) Confirm the kit is not expired.
 - 2) Remove the gray safety cap from auto-injector 1 (Atropine – smaller one).
 - 3) Firmly push the black end of the auto-injector against the lateral side of the patient's thigh, midway between waist and knee. The auto-injector may inject through clothing. DO NOT hit buttons or other objects. Make sure pockets are empty.
 - 4) Continue to push firmly until you feel the auto-injector trigger.
 - 5) Hold the auto-injector firmly in place until the medication is injected – 10 seconds.
 - 6) Massage the injection site for several seconds.
 - 7) After the drug has been administered, push the needle against a hard surface to bend the needle back against the auto-injector.
 - 8) Safely store and dispose of the used auto-injector (e.g., biohazard "sharps" container).
 - 9) Repeat the process for auto-injector 2 (Pralidoxime – larger one).
 - c. If you have DuoDote:
 - 1) Confirm the auto-injector is not expired.
 - 2) Firmly grasp the center of the auto-injector with the green tip pointing down.
 - 3) Pull off the gray safety release.
 - 4) Firmly push the green tip of the auto-injector against the lateral side of the patient's thigh, midway between waist and knee at a 90 degree angle. The auto-injector may

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- 5) Continue to push firmly until you feel the auto-injector trigger.
- 6) Hold the auto-injector firmly in place until the medication is injected – 10 seconds.
- 7) Remove the auto-injector from the injection site and look at the green tip. If the needle is visible, the drug has been administered. If the needle is not visible, check to be sure the gray safety release has been removed and then repeat steps 4-6 but push harder in step 4.
- 8) Massage the injection site for several seconds.
- 9) After the drug has been administered, push the needle against a hard surface to bend the needle back against the auto-injector.
- 10) Safely store and dispose of the used auto-injector (e.g., biohazards “sharps” container).

Note:

1. According to the 2008-1 EMSPC Standards Manual, as of July 1, 2008, the administration of Atropine and Pralidoxime by auto-injector is a required skill for the EMR, EMT, Advanced EMT and Paramedic.
2. The EMR, EMT and Advanced EMT must obtain EMS Bureau-specified training prior to skill credentialing.

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